

WHAT IS CLAIMED IS:

- 1 1. A method for controlling and providing access to a file to at least one
2 remote computer over a network, comprising:
3 maintaining metadata about files maintained at remote storage
4 locations;
5 receiving a request from the remote computer for a filename of a
6 requested file over the network;
7 determining from the metadata one remote storage location address
8 associated with the filename where the requested file is located;
9 updating the metadata for the requested file; and
10 sending the storage location address to the remote computer.
- 1 2. The method of claim 1, wherein the remote computer is a source code
2 management system client.
- 1 3. The method of claim 1, wherein the storage location address identifies
2 a storage device that is at a geographical location closer to the remote computer than
3 a location of the metadata.
- 1 4. The method of claim 3, wherein the request is for checking-out the
2 requested file corresponding to the filename, and further comprising:
3 locking the requested file;
4 returning a response code to the remote computer indicating that file check-out
5 is successful; and
6 updating the metadata indicating that the requested file is checked-out and
7 locked.
- 1 5. The method of claim 3, wherein the request is for checking-in the
2 requested file corresponding to the filename, and further comprising:
3 updating the metadata indicating the requested file is unlocked; and

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4 returning a response code indicating that the file check-in is successful.

1 6. The method of claim 1, further comprising:
2 processing a pattern of requests for the file received from remote computers at
3 different geographical locations;
4 determining one of a plurality of remote storage locations based on the pattern
5 of requests for the file;
6 storing the file corresponding to the file at the determined remote storage
7 location; and
8 saving a correspondence between the file and the storage location address in
9 the metadata.

1 7. The method of claim 6, wherein the determined remote storage
2 location is at a geographical location that is more proximate to the remote computer
3 having more requests for the file than other remote computers.

1 8. The method of claim 6, wherein the determined remote storage
2 location is selected from the plurality of remote storage locations to minimize a
3 distance the requested file is transmitted between each remote computer and the
4 remote storage location based on the number of requests for the file from each remote
5 computer.

1 9. The method of claim 1, wherein the remote computer is a source code
2 management system client, and the request is one of check-in, check-out, extract,
3 lock, unlock, delete.

1 10. A method for accessing a file in a source code management system,
2 comprising:
3 sending a first request for a file;

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4 receiving a storage location address containing the file in response to the first
5 request;
6 sending a second request to the storage location address; and
7 receiving an access to the file from the storage location address.

1 11. The method of claim 10, wherein the first request is for checking-out
2 the file, and further comprising:
3 downloading the file from the storage location address.

1 12. The method of claim 10, wherein the first request is for checking-in
2 the file, and further comprising:
3 sending a new version of the file to the storage location address.

1 13. The method of claim 10, further comprising:
2 receiving a first response code from a remote computer in response to the first
3 request; and
4 receiving a second response code from the storage location in response to the
5 second request.

1 14. A system for controlling and providing access to a file to remote
2 computers over a network, wherein remote storage locations are accessible over the
3 network, comprising:
4 metadata including information about files at the remote storage locations;
5 means for receiving a request from one remote computer for a filename of a
6 requested file over the network;
7 means for determining from the metadata one storage location address of one
8 remote storage location associated with the filename where the requested file is
9 located;
10 means for updating the metadata for the requested file; and

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11 means for sending the remote storage location address to the remote
12 computer.

1 15. The system of claim 14, wherein the remote computer is a source code
2 management system client.

1 16. The system of claim 14, wherein the storage location address identifies
2 a storage device that is at a geographical location closer to the remote computer than
3 a location of the metadata.

1 17. The system of claim 16, wherein the request is for checking-out the
2 requested file corresponding to the filename, and further comprising:
3 means for locking the requested file;
4 means for returning a response code to the remote computer indicating that file
5 check-out is successful; and
6 means for updating the metadata indicating that the requested file is checked-out
7 and locked.

1 18. The system of claim 16, wherein the request is for checking-in the
2 requested file corresponding to the filename, and further comprising:
3 means for updating the metadata indicating the requested file is unlocked; and
4 means for returning a response code indicating that the file check-in is
5 successful.

1 19. The system of claim 14, further comprising:
2 means for processing a pattern of requests for the file received from remote
3 computers at different geographical locations;
4 means for determining one of a plurality of remote storage locations based on
5 the pattern of requests for the file;

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6 means for storing the file corresponding to the file at the determined remote
7 storage location; and

8 means for saving a correspondence between the file and the storage location
9 address in the metadata.

1 20. The system of claim 19, wherein the determined remote storage
2 location is at a geographical location that is more proximate to the remote computer
3 having more requests for the file than other remote computers.

21. The system of claim 19, wherein the determined remote storage location is selected from the plurality of remote storage locations to minimize a distance the requested file is transmitted between each remote computer and the remote storage location based on the number of requests for the file from each remote computer.

1 22. The system of claim 14, wherein the remote computer is a source
2 code management system client, and the request is one of check-in, check-out,
3 extract, lock, unlock, delete.

1 23. A system for accessing a file in a source code management system,
2 comprising:
3 means for sending a first request for a file;
4 means for receiving a storage location address containing the file in response
5 to the first request;
6 means for sending a second request to the storage location address; and
7 means for receiving an access to the file from the storage location address.

1 24. The system of claim 23, wherein the first request is for checking-out
2 the file, and further comprising:
3 means for downloading the file from the storage location address.

1 25. The system of claim 23, wherein the first request is for checking-in the
2 file, and further comprising:

3 means for sending a new version of the file to the storage location address.

1 26. The system of claim 23, further comprising:

2 means for receiving a first response code from a remote computer in response
3 to the first request; and

4 means for receiving a second response code from the storage location in
5 response to the second request.

1 27. An article of manufacture including code for controlling and
2 providing access to a file at storage locations on a network to at least one remote
3 computer over the network, wherein the code is capable of causing operations
4 comprising:

5 maintaining metadata about files maintained at remote storage
6 locations;

7 receiving a request from the remote computer for a filename of a
8 requested file over the network;

9 determining from the metadata one remote storage location address
10 associated with the filename where the requested file is located;

11 updating the metadata for the requested file; and

12 sending the storage location address to the remote computer.

1 28. The article of manufacture of claim 27, wherein the remote computer
2 is a source code management system client.

1 29. The article of manufacture of claim 27, wherein the storage location
2 address identifies a storage device that is at a geographical location closer to the
3 remote computer than a location of the metadata.

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1 30. The article of manufacture of claim 29, wherein the request is for
2 checking-out the requested file corresponding to the filename, and further comprising:
3 locking the requested file;
4 returning a response code to the remote computer indicating that file check-out
5 is successful; and
6 updating the metadata indicating that the requested file is checked-out and
7 locked.

1 31. The article of manufacture of claim 29, wherein the request is for
2 checking-in the requested file corresponding to the filename, and further comprising:
3 updating the metadata indicating the requested file is unlocked; and
4 returning a response code indicating that the file check-in is successful.

1 32. The article of manufacture of claim 27, further comprising:
2 processing a pattern of requests for the file received from remote computers at
3 different geographical locations;
4 determining one of a plurality of remote storage locations based on the pattern
5 of requests for the file;
6 storing the file corresponding to the file at the determined remote storage
7 location; and
8 saving a correspondence between the file and the storage location address in
9 the metadata.

1 33. The article of manufacture of claim 32, wherein the determined remote
2 storage location is at a geographical location that is more proximate to the remote
3 computer having more requests for the file than other remote computers.

1 34. The article of manufacture of claim 32, wherein the determined remote
2 storage location is selected from the plurality of remote storage locations to minimize
3 a distance the requested file is transmitted between each remote computer and the

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4 remote storage location based on the number of requests for the file from each remote
5 computer.

1 35. The article of manufacture of claim 27, wherein the remote computer
2 is a source code management system client, and the request is one of check-in, check-
3 out, extract, lock, unlock, delete.

1 36. A article of manufacture including code for accessing a file in a source
2 code management system, wherein the code is capable of causing operations
3 comprising:

4 sending a first request for a file;
5 receiving a storage location address containing the file in response to the first
6 request;
7 sending a second request to the storage location address; and
8 receiving an access to the file from the storage location address.

1 37. The article of manufacture of claim 36, wherein the first request is for
2 checking-out the file, and further comprising:
3 downloading the file from the storage location address.

1 38. The article of manufacture of claim 36, wherein the first request is for
2 checking-in the file, and further comprising:
3 sending a new version of the file to the storage location address.

1 39. The article of manufacture of claim 36, further comprising:
2 receiving a first response code from a remote computer in response to the first
3 request; and
4 receiving a second response code from the storage location in response to the
5 second request.